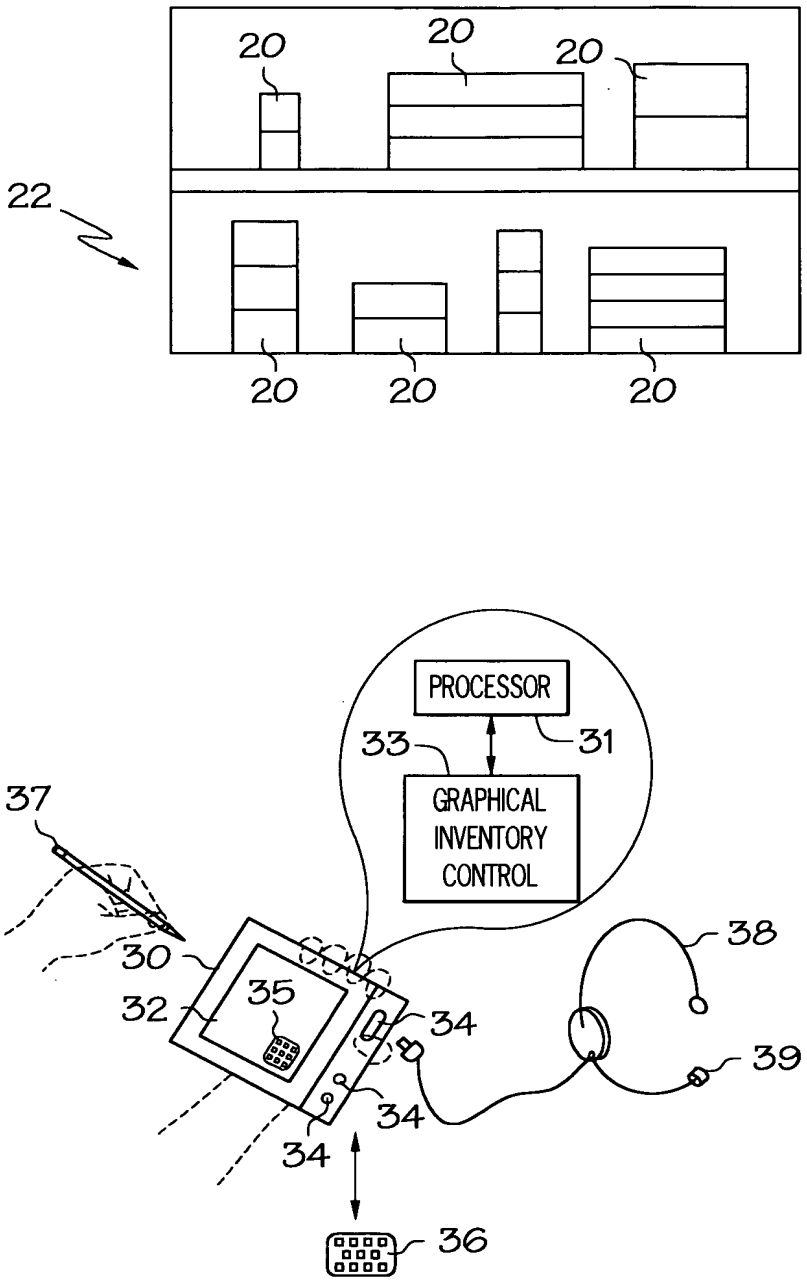

20
20
20
22
20
20
20
PROCESSOR
33
31
GRAPHICAL
INVENTORY
CONTROL
37
38
30
35
32
34
39
34
34
36

FIG. 1

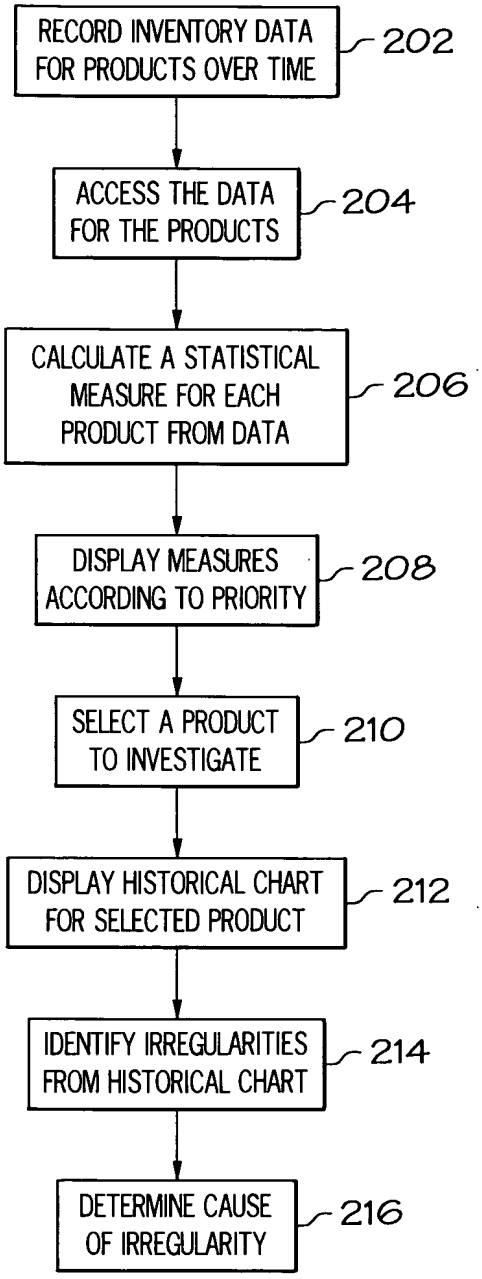

RECORD INVENTORY DATA FOR PRODUCTS OVER TIME
202
ACCESS THE DATA FOR THE PRODUCTS
204
CALCULATE A STATISTICAL MEASURE FOR EACH PRODUCT FROM DATA
206
DISPLAY MEASURES ACCORDING TO PRIORITY
208
SELECT A PRODUCT TO INVESTIGATE
210
DISPLAY HISTORICAL CHART FOR SELECTED PRODUCT
212
IDENTIFY IRREGULARITIES FROM HISTORICAL CHART
214
DETERMINE CAUSE OF IRREGULARITY
216

FIG. 2

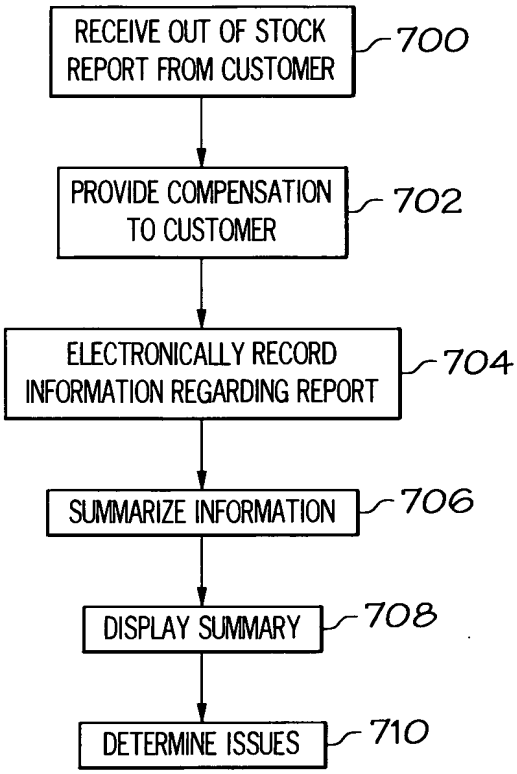
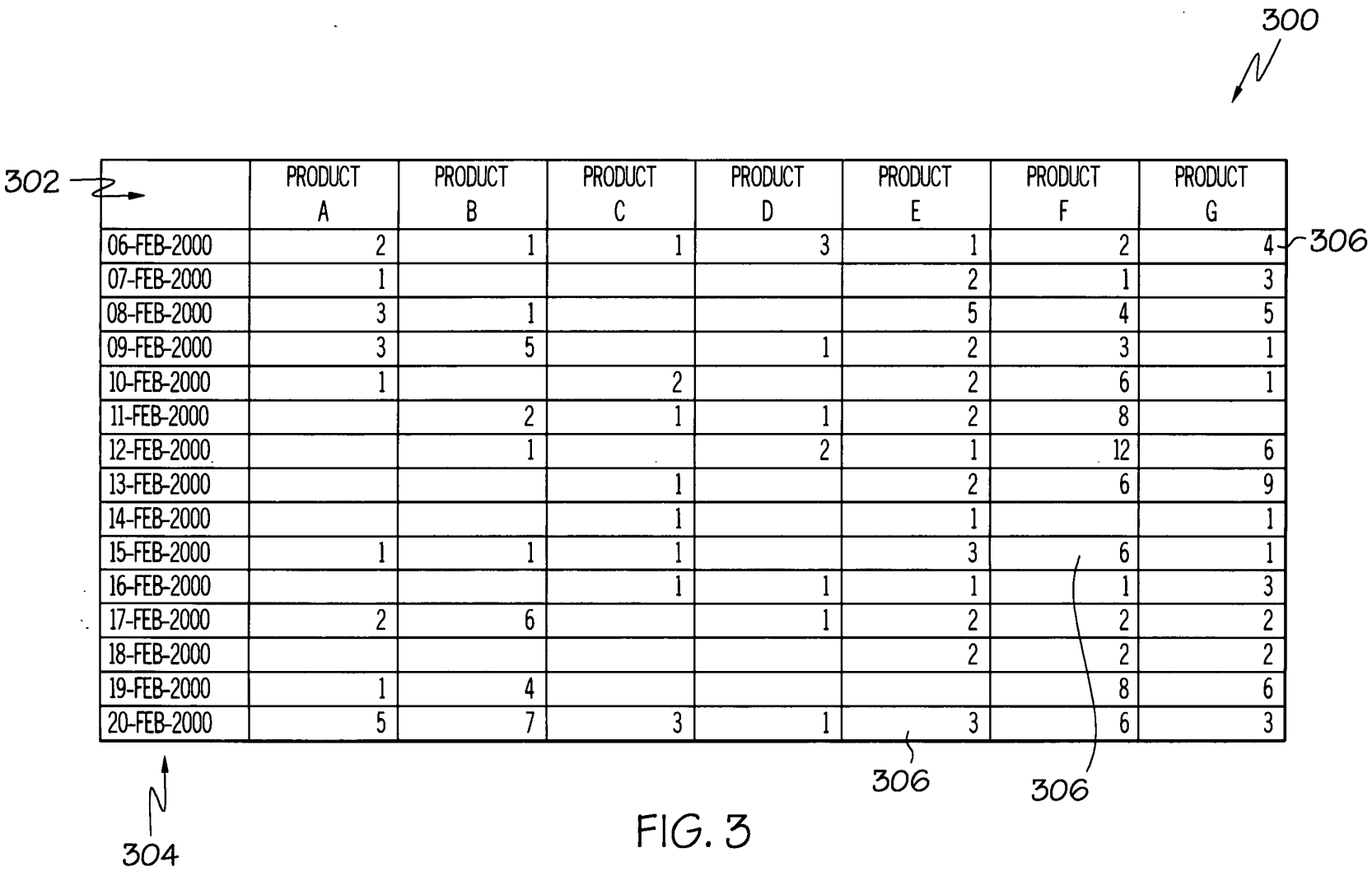

RECEIVE OUT OF STOCK REPORT FROM CUSTOMER
700
PROVIDE COMPENSATION TO CUSTOMER
702
ELECTRONICALLY RECORD INFORMATION REGARDING REPORT
704
SUMMARIZE INFORMATION
706
DISPLAY SUMMARY
708
DETERMINE ISSUES
710

FIG. 7



	PRODUCT A	PRODUCT B	PRODUCT C	PRODUCT D	PRODUCT E	PRODUCT F	PRODUCT G
06-FEB-2000	2	1	1	3	1	2	4
07-FEB-2000	1				2	1	3
08-FEB-2000	3	1			5	4	5
09-FEB-2000	3	5		1	2	3	1
10-FEB-2000	1		2		2	6	1
11-FEB-2000		2	1	1	2	8	
12-FEB-2000		1		2	1	12	6
13-FEB-2000			1		2	6	9
14-FEB-2000			1		1		1
15-FEB-2000	1	1	1		3	6	1
16-FEB-2000			1	1	1	1	3
17-FEB-2000	2	6		1	2	2	2
18-FEB-2000					2	2	2
19-FEB-2000	1	4				8	6
20-FEB-2000	5	7	3	1	3	6	3

FIG. 3

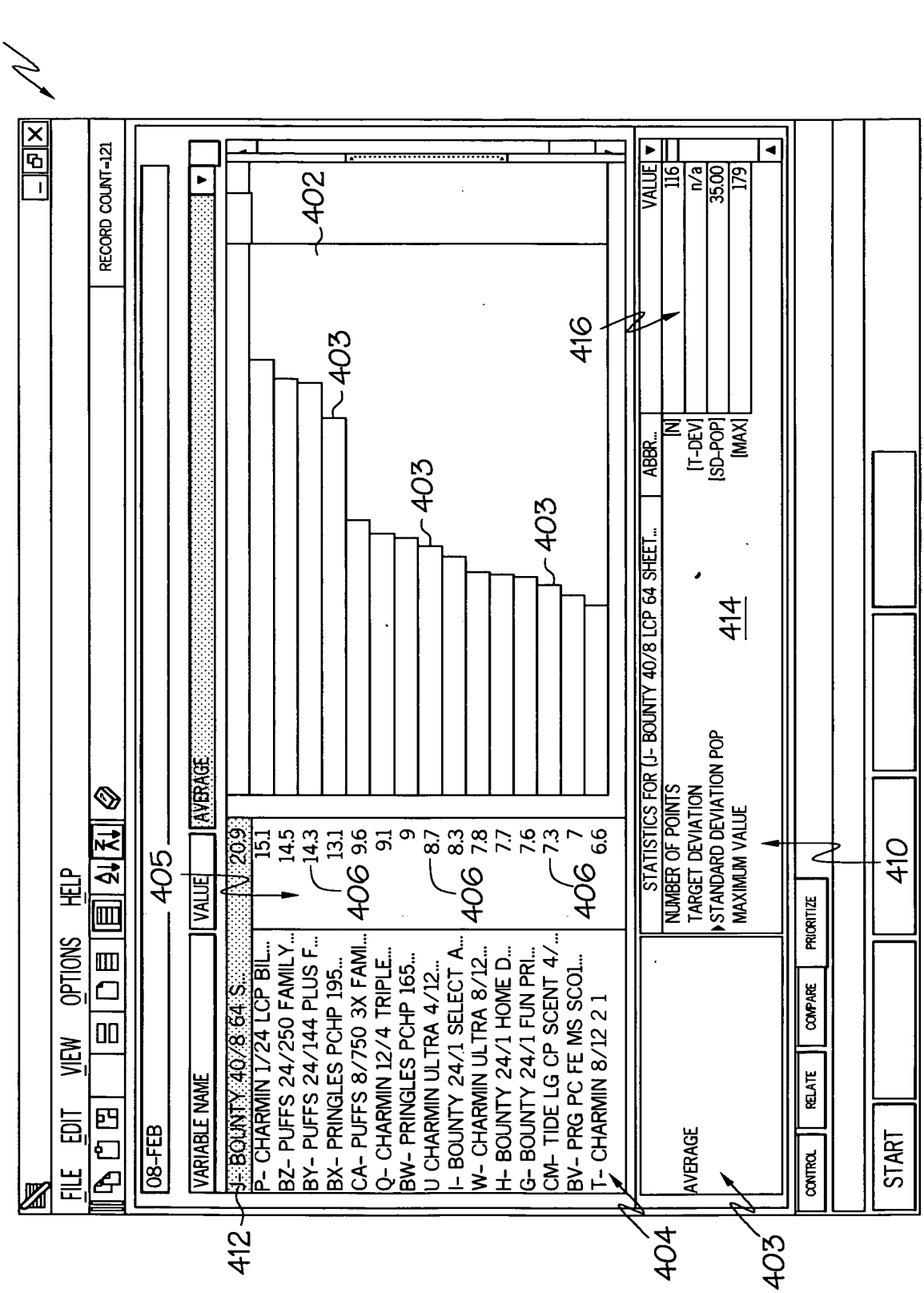

400
FILE EDIT VIEW OPTIONS HELP
RECORD COUNT=121
08-FEB
405
VARIABLE NAME
VALUE
AVERAGE
J- BOUNTY 40/8 64 S...
P- CHARMIN 1/24 LCP BIL...
BZ- PUFFS 24/250 FAMILY...
BY- PUFFS 24/144 PLUS F...
BX- PRINGLES PCHP 195...
CA- PUFFS 8/750 3X FAMI...
Q- CHARMIN 12/4 TRIPLE...
BW- PRINGLES PCHP 165...
U CHARMIN ULTRA 4/12...
I- BOUNTY 24/1 SELECT A...
W- CHARMIN ULTRA 8/12...
H- BOUNTY 24/1 HOME D...
G- BOUNTY 24/1 FUN PRI...
CM- TIDE LG CP SCENT 4/...
BV- PRG PC FE MS SCOL...
T- CHARMIN 8/12 2 1
20.9
15.1
14.5
14.3
13.1
9.6
9.1
9
8.7
8.3
7.8
7.7
7.6
7.3
7
6.6
406
402
403
416
STATISTICS FOR (J- BOUNTY 40/8 LCP 64 SHEET...
ABBR...
VALUE
NUMBER OF POINTS
[N]
116
TARGET DEVIATION
[T-DEV]
n/a
STANDARD DEVIATION POP
[SD-POP]
35.00
MAXIMUM VALUE
[MAX]
179
414
AVERAGE
CONTROL
RELATE
COMPARE
PRIORITIZE
START
410
412
404
403

FIG. 4

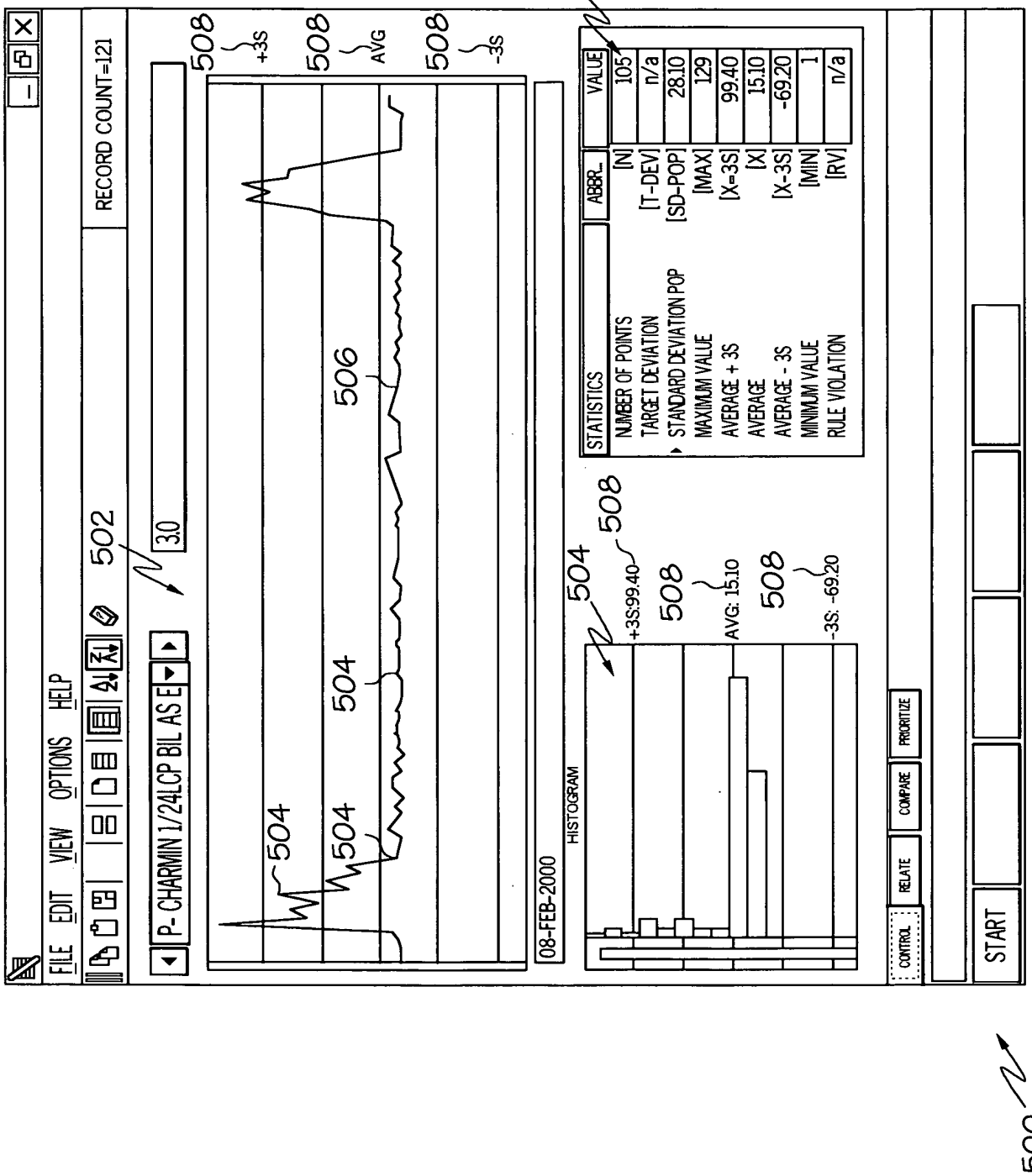

FILE EDIT VIEW OPTIONS HELP
RECORD COUNT=121
P- CHARMIN 1/24LCP BIL AS E
3.0
502
504
506
508
+3s
AVG
-3s
510
STATISTICS
ABBR.
VALUE
NUMBER OF POINTS [N] 105
TARGET DEVIATION [T-DEV] n/a
STANDARD DEVIATION POP [SD-POP] 28.10
MAXIMUM VALUE [MAX] 129
AVERAGE + 3S [X+3S] 99.40
AVERAGE [X] 15.10
AVERAGE - 3S [X-3S] -69.20
MINIMUM VALUE [MIN] 1
RULE VIOLATION [RV] n/a
08-FEB-2000
HISTOGRAM
+3S:99.40
AVG: 15.10
-3S: -69.20
CONTROL
RELATE
COMPARE
PRIORITIZE
START
500

FIG. 5

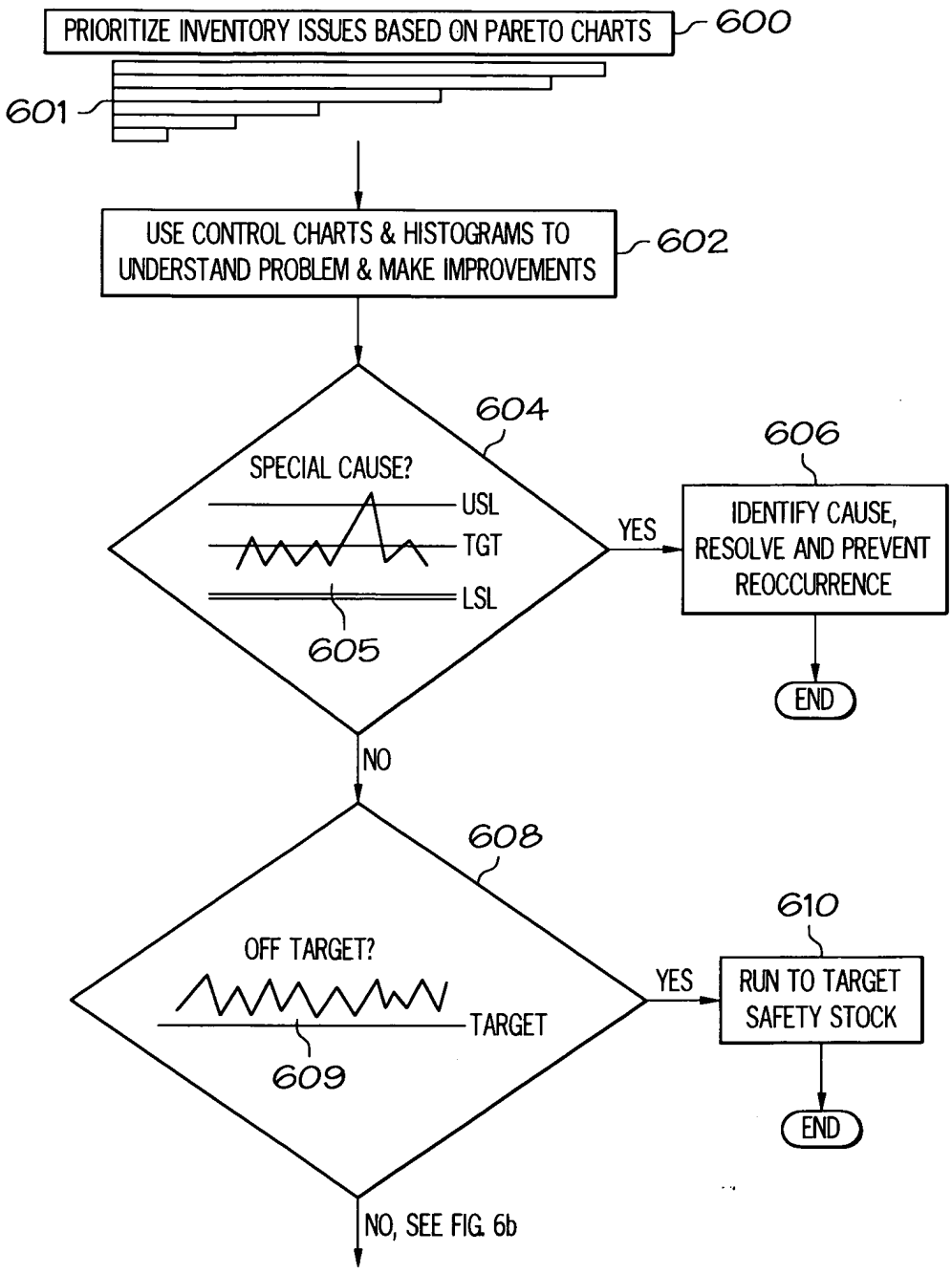

PRIORITIZE INVENTORY ISSUES BASED ON PARETO CHARTS
600
601
USE CONTROL CHARTS & HISTOGRAMS TO UNDERSTAND PROBLEM & MAKE IMPROVEMENTS
602
604
SPECIAL CAUSE?
USL
TGT
LSL
605
YES
606
IDENTIFY CAUSE, RESOLVE AND PREVENT REOCCURRENCE
END
NO
608
OFF TARGET?
TARGET
609
YES
610
RUN TO TARGET SAFETY STOCK
END
NO, SEE FIG. 6b

FIG. 6a

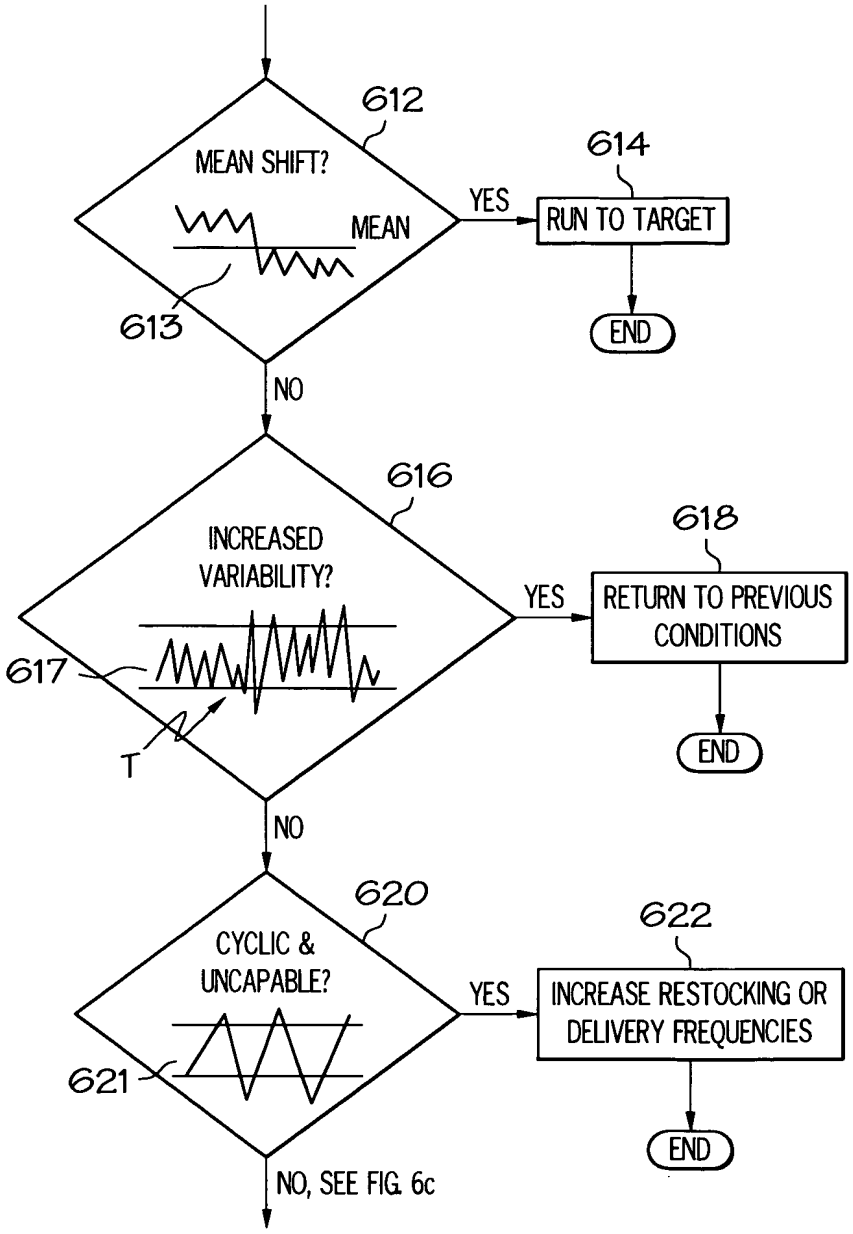

612
MEAN SHIFT?
MEAN
613
YES
614
RUN TO TARGET
END
NO
616
INCREASED VARIABILITY?
617
T
YES
618
RETURN TO PREVIOUS CONDITIONS
END
NO
620
CYCLIC & UNCAPABLE?
621
YES
622
INCREASE RESTOCKING OR DELIVERY FREQUENCIES
END
NO, SEE FIG. 6c

FIG. 6b

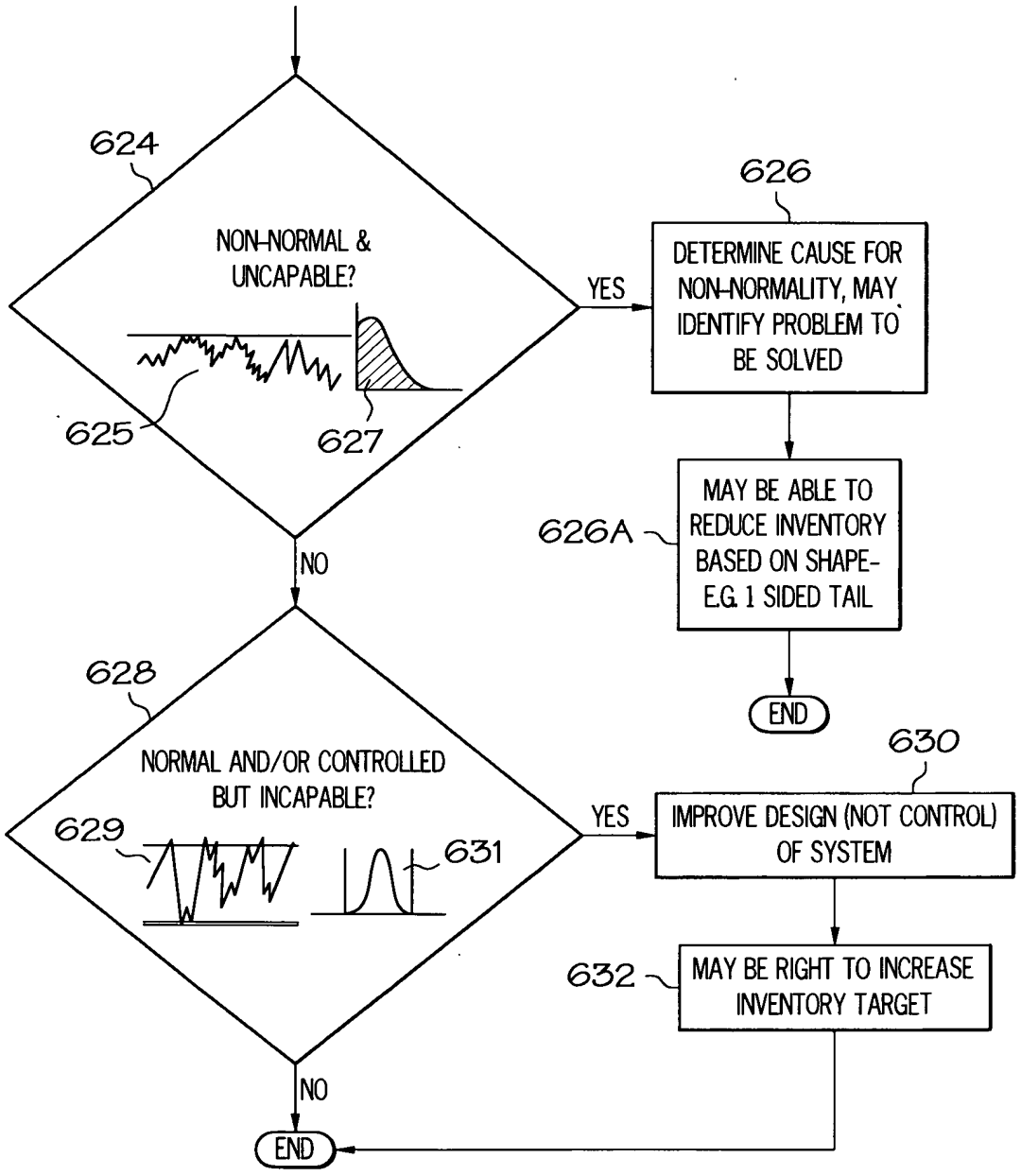

624
NON-NORMAL & UNCAPABLE?
625
627
YES
626
DETERMINE CAUSE FOR NON-NORMALITY, MAY IDENTIFY PROBLEM TO BE SOLVED
626A
MAY BE ABLE TO REDUCE INVENTORY BASED ON SHAPE- E.G. 1 SIDED TAIL
END
NO
628
NORMAL AND/OR CONTROLLED BUT INCAPABLE?
629
631
YES
630
IMPROVE DESIGN (NOT CONTROL) OF SYSTEM
632
MAY BE RIGHT TO INCREASE INVENTORY TARGET
NO
END

FIG. 6c

FEBRUARY OUT OF STOCK REPORT					
PRODUCT	DATE	DAY	TIME	CAUSE	SALE
A	2 / 1	WEDS	1:29	IN BACK ROOM	NO
	2 / 20	FRI	7:50	NO STOCK IN STORE	NO
	3 / 15	TUES	10:32	TRUCK NOT UNLOADED	YES
B	2 / 11	MON	12:01	IN BACK ROOM	NO
	2 / 28	SAT	2:02	IN EXTRA STORAGE	NO

FIG. 8

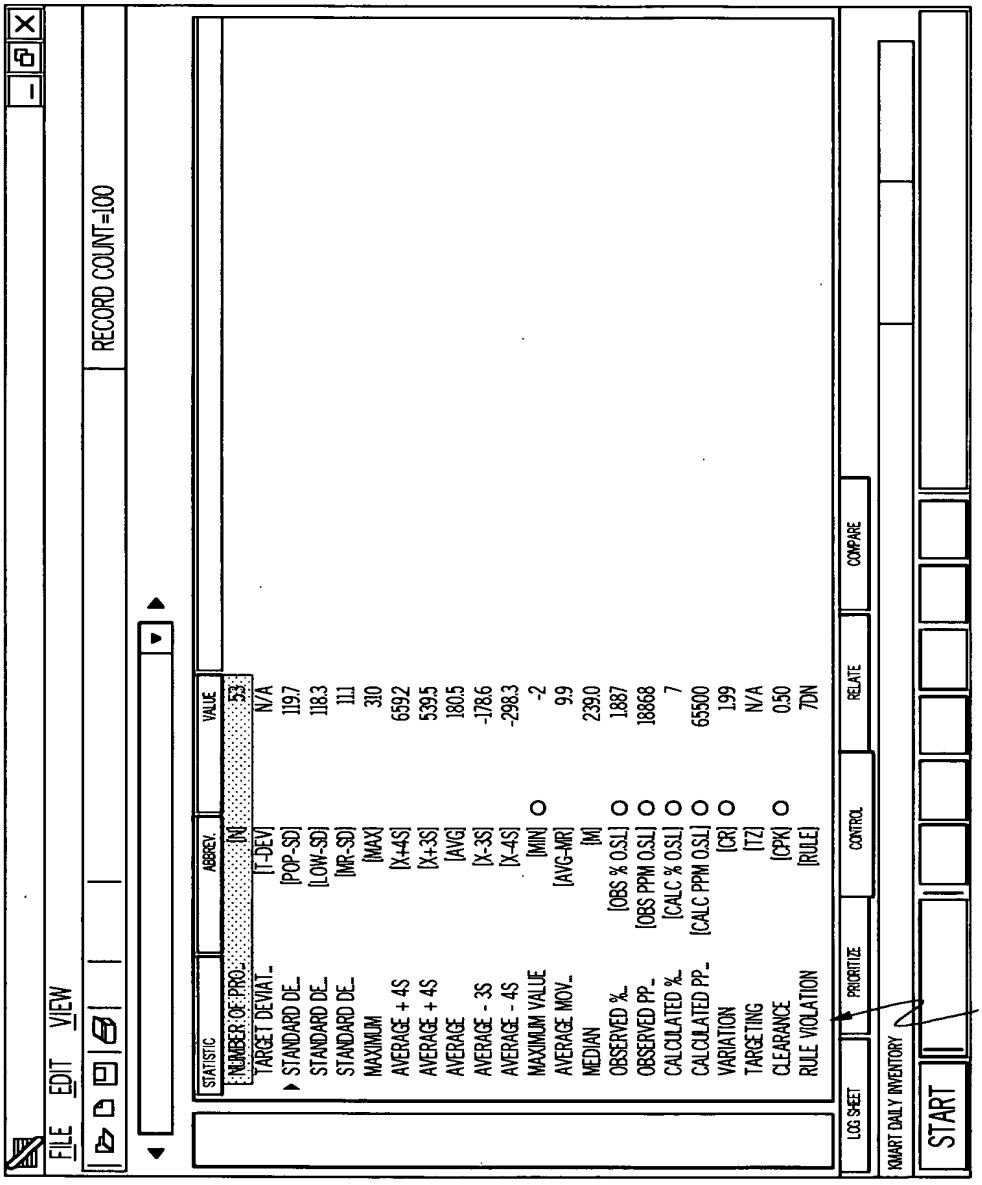

FILE EDIT VIEW
RECORD COUNT=100
STATISTIC
ABBREV.
VALUE
NUMBER OF PRO... [N] 53
TARGET DEVIAT... [T-DEV] N/A
STANDARD DE... [POP-SD] 119.7
STANDARD DE... [LOW-SD] 118.3
STANDARD DE... [MR-SD] 111
MAXIMUM [MAX] 310
AVERAGE + 4S [X+4S] 659.2
AVERAGE + 3S [X+3S] 539.5
AVERAGE [AVG] 180.5
AVERAGE - 3S [X-3S] -178.6
AVERAGE - 4S [X-4S] -298.3
MAXIMUM VALUE [MIN] -2
AVERAGE MOV... [AVG-MR] 9.9
MEDIAN [M] 239.0
OBSERVED %... [OBS % O.S.L.] 1.887
OBSERVED PP... [OBS PPM O.S.L.] 18868
CALCULATED %... [CALC % O.S.L.] 7
CALCULATED PP... [CALC PPM O.S.L.] 65500
VARIATION [CR] 1.99
TARGETING [TZ] N/A
CLEARANCE [CPK] 0.50
RULE VIOLATION [RULE] 7DN
LOG SHEET
PRIORITIZE
CONTROL
RELATE
COMPARE
XMART DAILY INVENTORY
START
900

FIG. 9

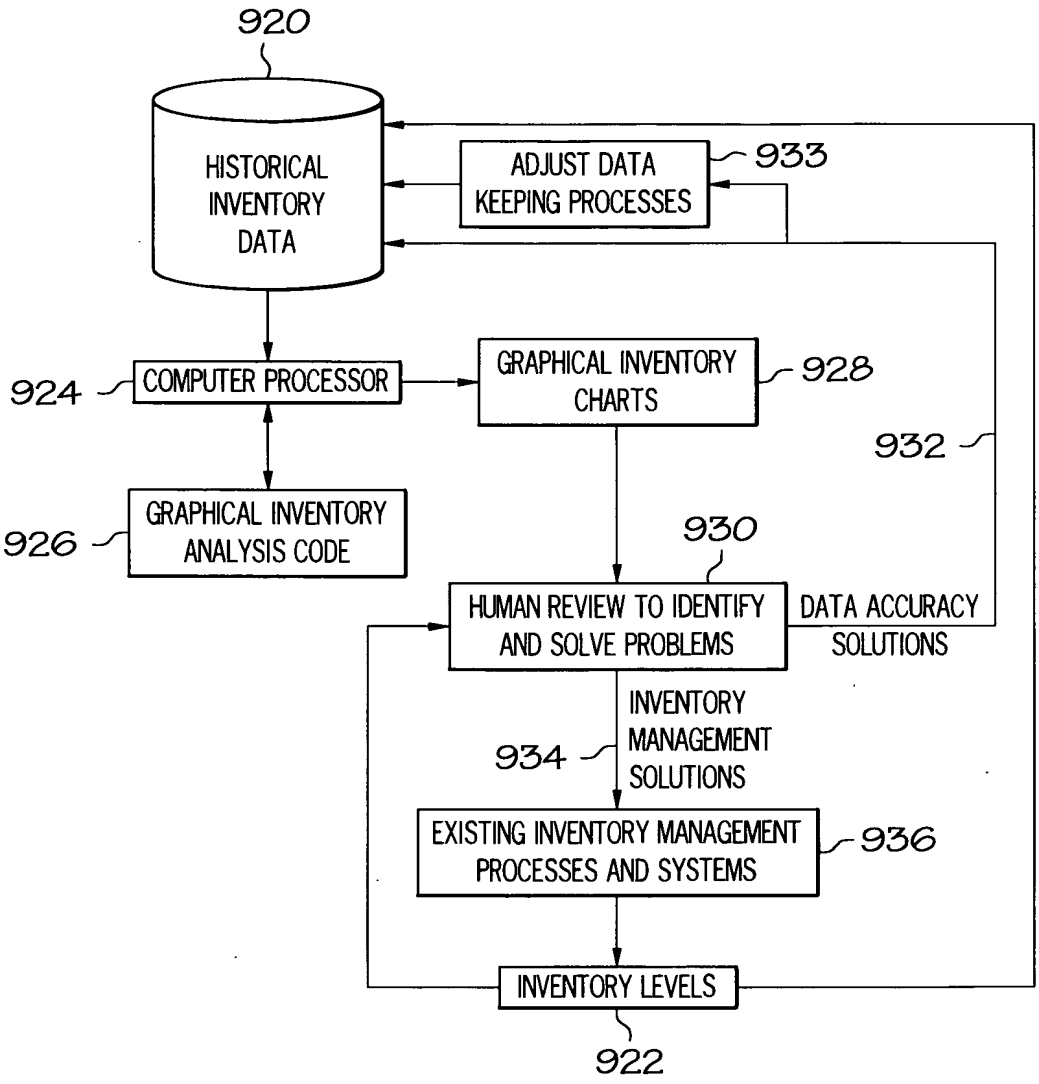

920
HISTORICAL INVENTORY DATA
ADJUST DATA KEEPING PROCESSES
933
924
COMPUTER PROCESSOR
GRAPHICAL INVENTORY CHARTS
928
932
926
GRAPHICAL INVENTORY ANALYSIS CODE
930
HUMAN REVIEW TO IDENTIFY AND SOLVE PROBLEMS
DATA ACCURACY SOLUTIONS
INVENTORY MANAGEMENT SOLUTIONS
934
EXISTING INVENTORY MANAGEMENT PROCESSES AND SYSTEMS
936
INVENTORY LEVELS
922

FIG. 10